



September 21, 2010

NRC 2010-0153
10 CFR 50.73

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555

Point Beach Nuclear Plant, Unit 1
Docket 50-266
Renewed License No. DPR-24

Licensee Event Report 266/2010-002-00
Manual Reactor Trip Due to
Lowering Condenser Vacuum

Enclosed is Licensee Event Report (LER) 266/2010-002-00 for Point Beach Nuclear Plant (PBNP), Unit 1. This LER documents a manual reactor scram of Unit 1 from approximately 19% power due to lowering condenser vacuum. Pursuant to 10 CFR 50.73(a)(2)(iv)(A), the event is reportable as "... an event or condition that resulted in manual or automatic actuation of the Reactor Protection System: including reactor scram or reactor trip."

This submittal contains no new or revised regulatory commitments.

If you have questions or require additional information, please contact Mr. James Costedio at 920/755-7427.

Very truly yours,

NextEra Energy Point Beach, LLC

A handwritten signature in black ink, appearing to read "Larry Meyer".

Larry Meyer
Site Vice President

Enclosure

cc: Administrator, Region III, USNRC
Project Manager, Point Beach Nuclear Plant, USNRC
Resident Inspector, Point Beach Nuclear Plant, USNRC
PSCW

LICENSEE EVENT REPORT (LER)

(See reverse for required number of
digits/characters for each block)

Estimated burden per response to comply with this mandatory collection request: 80 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the Records and FOIA/Privacy Service Branch (T-5 F52), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollects@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0104), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

1. FACILITY NAME

Point Beach Nuclear Plant – Unit 1

2. DOCKET NUMBER

05000266

3. PAGE

1 of 3

4. TITLE

Manual Reactor Trip Due to Lowering Condenser Vacuum

5. EVENT DATE			6. LER NUMBER			7. REPORT DATE			8. OTHER FACILITIES INVOLVED	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO.	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
07	26	2010	2010	- 002 -	00	09	21	2010	N/A	N/A

9. OPERATING MODE	11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR§: (Check all that apply)			
1	<input type="checkbox"/> 20.2201(b)	<input type="checkbox"/> 20.2203(a)(3)(i)	<input type="checkbox"/> 50.73(a)(2)(i)(C)	<input type="checkbox"/> 50.73(a)(2)(vii)
	<input type="checkbox"/> 20.2201(d)	<input type="checkbox"/> 20.2203(a)(3)(ii)	<input type="checkbox"/> 50.73(a)(2)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)
	<input type="checkbox"/> 20.2203(a)(1)	<input type="checkbox"/> 20.2203(a)(4)	<input type="checkbox"/> 50.73(a)(2)(ii)(B)	<input type="checkbox"/> 50.73(a)(2)(viii)(B)
	<input type="checkbox"/> 20.2203(a)(2)(i)	<input type="checkbox"/> 50.36(c)(1)(i)(A)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(ix)(A)
	<input type="checkbox"/> 20.2203(a)(2)(ii)	<input type="checkbox"/> 50.36(c)(1)(ii)(A)	<input checked="" type="checkbox"/> 50.73(a)(2)(iv)(A)	<input type="checkbox"/> 50.73(a)(2)(x)
	<input type="checkbox"/> 20.2203(a)(2)(iii)	<input type="checkbox"/> 50.36(c)(2)	<input type="checkbox"/> 50.73(a)(2)(v)(A)	<input type="checkbox"/> 73.71(a)(4)
10. POWER LEVEL	<input type="checkbox"/> 20.2203(a)(2)(iv)	<input type="checkbox"/> 50.46(a)(3)(ii)	<input type="checkbox"/> 50.73(a)(2)(v)(B)	<input type="checkbox"/> 73.71(a)(5)
	<input type="checkbox"/> 20.2203(a)(2)(v)	<input type="checkbox"/> 50.73(a)(2)(i)(A)	<input type="checkbox"/> 50.73(a)(2)(v)(C)	<input type="checkbox"/> OTHER
	<input type="checkbox"/> 20.2203(a)(2)(vi)	<input type="checkbox"/> 50.73(a)(2)(i)(B)	<input type="checkbox"/> 50.73(a)(2)(v)(D)	Specify in Abstract below or in NRC Form 366A

12. LICENSEE CONTACT FOR THIS LER

NAME

R. Clark

TELEPHONE NUMBER (Include Area Code)

920/755-7464

13. COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT

CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX

14. SUPPLEMENTAL REPORT EXPECTED

☐ YES (If yes, complete 15. EXPECTED SUBMISSION DATE)☒ NO15. EXPECTED
SUBMISSION
DATE

MONTH	DAY	YEAR

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines)

On 7/26/2010 at 2001 CDT, operations personnel initiated a manual reactor trip of Unit 1 from approximately 19% reactor power. Unit 1 was off-line to support main generator repair. The generator breaker had just been opened and steam load was transferred to the condenser steam dumps when condenser vacuum lowered. The reactor was manually tripped in accordance with plant procedures due to a lowering of main condenser vacuum prior to an automatic trip of the reactor. All safety systems functioned as expected. All control rods fully inserted.

The lowering of condenser vacuum and subsequent manual reactor trip was caused by the improper application and adherence to human performance (HU) tool standards for self-checking. The failure to perform the self-check resulted in an incorrect status report for the turbine crossover steam dump motor operated valves, 1MOV-1 and 1MOV-2.

LICENSEE EVENT REPORT (LER)

1. FACILITY NAME	2. DOCKET	6. LER NUMBER			3. PAGE
Point Beach Nuclear Plant – Unit 1	05000266	YEAR	SEQUENTIAL NUMBER	REV NO.	2 of 3
		2010	-- 002 --	00	

Event Description:

On 7/26/2010 at 2001 CDT, Control Room personnel initiated a Unit 1 manual reactor trip from approximately 19% reactor power. Unit 1 was off-line to support main generator repair. The generator breaker had just been opened and steam load was transferred to the condenser steam dumps when condenser vacuum lowered. The reactor was manually tripped in accordance with plant procedures due to a lowering of main condenser vacuum prior to an automatic trip of the reactor. All systems functioned as expected. All control rods fully inserted.

In preparation for taking the generator and turbine off-line, a qualified auxiliary operator (AO) was directed to shut the Unit 1 turbine crossover steam dump motor operated valves and place their control switches to stop. The AO incorrectly read the local position indication for the valves as shut, when in fact the valves were open. The turbine crossover steam dump valves remained open when the control switch was subsequently placed in stop.

The errant local position indication reading resulted in the AO reporting that the turbine crossover steam dump valves were closed to the Control Room. The Control Room proceeded with the main generator shutdown in accordance with plant procedures. After the turbine and generator were taken offline, the lowering of crossover steam pressure allowed air to flow through the open crossover steam dump isolation valves into the Unit 1 main condenser. The lowering of condenser vacuum would not sustain plant operation. As a result, Unit 1 reactor was manually tripped.

An event notification was made on July 26, 2010, in accordance with the requirements of 10 CFR 50.72(b)(2)(iv)(B) and 10 CFR 50.72(b)(3)(iv)(A).

This 60-day licensee event report is being submitted in accordance with the requirements of 10 CFR 50.73(a)(2)(iv)(A).

Event Analysis:

On July 26, 2010, at approximately 0900 CDT, Operations began preparations to downpower Unit 1 to take the generator and turbine offline to support main generator repair. At 1242 CDT on July 26, Operations commenced the load ramp of Unit 1 at 15% per hour in accordance with plant procedures.

During the load ramp, the Senior Reactor Operator (SRO) for Unit 1 directed an Auxiliary Operator (AO) to shut the Unit 1 turbine crossover steam dump motor operated valves, 1MOV-1 and 1MOV-2 and place their control switches to stop. The proper use of self-checking was not discussed in the brief between the SRO and AO. The AO left the control room and went to the crossover steam dump control panel. The AO looked at the control panel and incorrectly perceived that both 1MOV-1 and 1MOV-2 were already shut. However, the RED (OPEN) lights were lit for each valve, and the corresponding position meters indicated open. Believing that both turbine crossover steam dump motor operated valves were closed, the AO took the control switch to STOP. Following completion of this activity, the AO called the Control Room to report the status of the valves as SHUT. This status was incorrect as the valves were still OPEN.

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LICENSEE EVENT REPORT (LER)

1. FACILITY NAME	2. DOCKET	6. LER NUMBER			3. PAGE
Point Beach Nuclear Plant – Unit 1	05000266	YEAR	SEQUENTIAL NUMBER	REV NO.	3 of 3
		2010	-- 002 --	00	

The Control Operator received and acknowledged the call from the AO stating the step was complete. The Control Room proceeded with the main generator shutdown in accordance with plant procedures with an incorrect awareness to the status of 1MOV-1 and 1MOV-2.

At 1958 CDT, the Unit 1 generator main breaker was opened in accordance with the procedure. After the turbine generator was taken offline, the lowering of crossover steam pressure allowed air to flow through the open crossover steam dump isolation valves into the Unit 1 main condenser. This created the lowering vacuum condition for the Unit 1 main condenser. At 2001 CDT, Unit 1 reactor was manually tripped due to lowering vacuum in the Unit 1 main condenser.

There were no equipment failures associated with this event. Therefore, the event does not represent a safety system functional failure.

Safety Significance:

During the event and subsequent recovery actions, there was no loss of a safety-related system, structure, or component. The plant response following the manual reactor trip was as expected. Although the event was a manual actuation of the reactor protection system, plant equipment performance allowed a stable configuration to be maintained. Thus, the safety significance of the event was low. There was no impact on the health and safety of the public as a result of this event.

Cause:

The lowering of condenser vacuum and subsequent manual reactor trip was caused by the improper application and adherence to human performance (HU) tool standards for self-checking. The failure to perform the self-check resulted in an incorrect status report for the turbine crossover steam dump motor operated valves, 1MOV-1 and 1MOV-2.

Corrective Action:

The following corrective action was taken:

Operations has implemented job performance measures (JPM) to instruct and evaluate the ability of an operator to perform A self-check (STAR) correctly.

Additional corrective action to be taken:

Operations to change the auxiliary operator continual training program, to permanently institute HU training JPMs for auxiliary operators and licensed operators.

Previous Occurrences: There have been no similar LERs submitted within the last three years.

Failed Components Identified: None